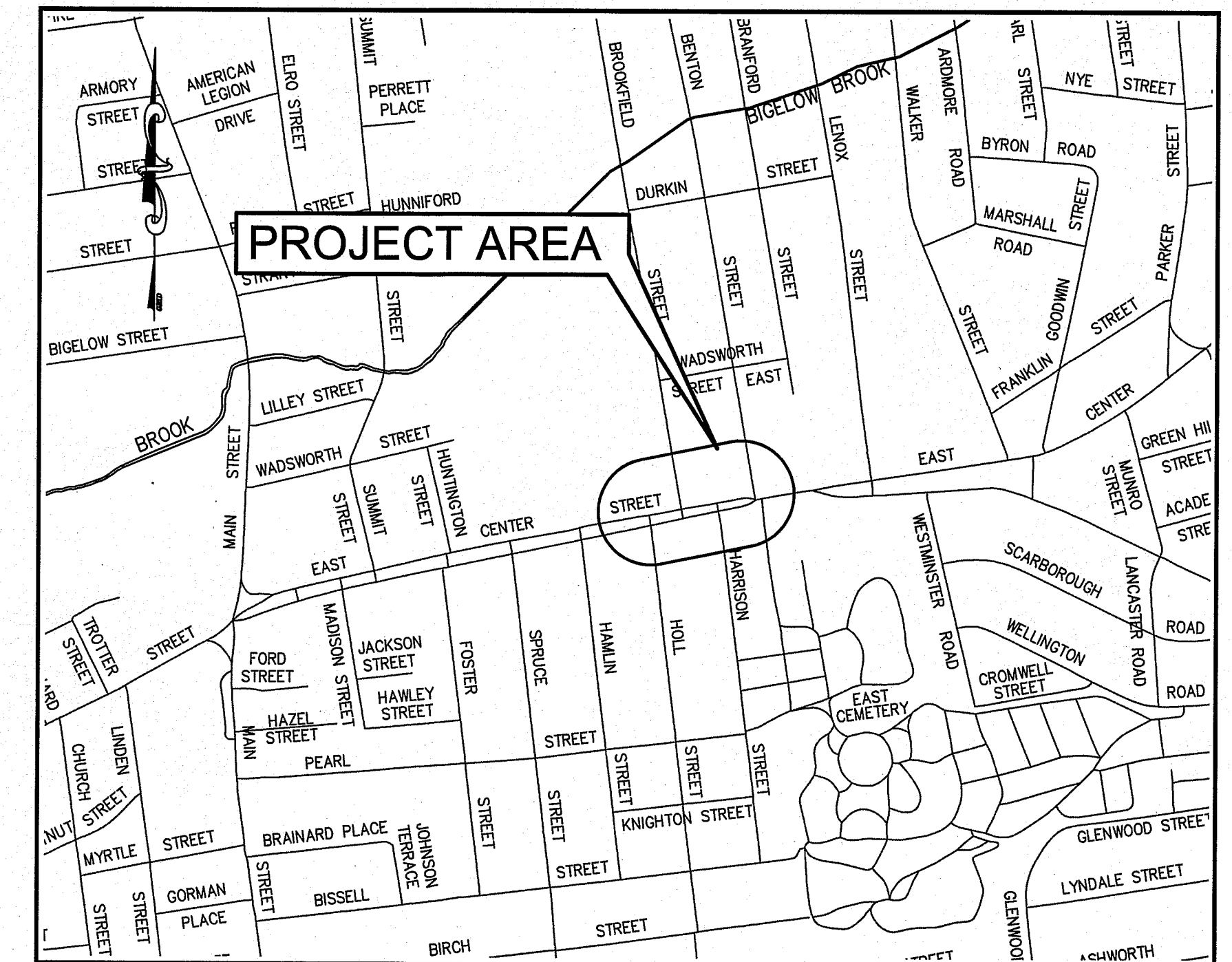


LOCATION MAP  
1" = 1500'

# TOWN OF MANCHESTER

## PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION



SITE MAP  
1" = 600'

# EAST CENTER STREET PEDESTRIAN IMPROVEMENTS AT HOLL STREET & AT BENTON STREET

COMMUNITY DEVELOPMENT BLOCK GRANT

MAY 2023

DESIGN STANDARD : TOWN OF MANCHESTER PUBLIC IMPROVEMENT  
STANDARDS, EFFECTIVE DATE OCTOBER 31, 2020,  
AS AMENDED

DATUMS : HORIZONTAL DATUM: TOWN OF MANCHESTER  
CONTROL NETWORK  
(NAD83 AS ESTABLISHED IN 1998)

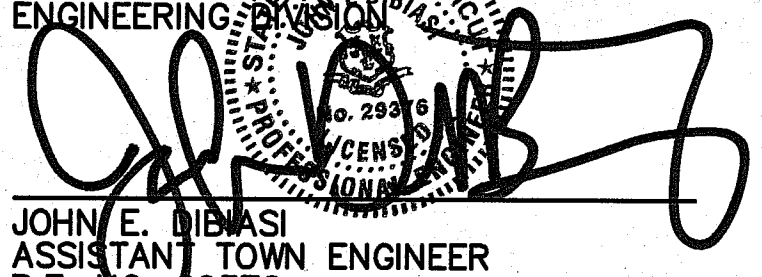
VERTICAL DATUM: TOWN OF MANCHESTER  
CONTROL NETWORK  
(NAVD88 USING GEOID 96)

STANDARD  
SPECIFICATIONS : SEE CONTRACT DOCUMENTS

DESIGN SCALES : PLAN: 1" = 20'  
OTHER SCALES AS NOTED

LIST OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES - RAMP DETAILS
3	SITE PLAN - HOLL STREET CROSSING
4	SITE PLAN - BENTON STREET CROSSING
5	RRFB TRAFFIC SIGNAL PLAN - HOLL STREET CROSSING
6	RRFB TRAFFIC SIGNAL PLAN - BENTON STREET CROSSING
7-9	CONSTRUCTION DETAILS

STANDARD CTDOT DETAILS		
SHEET NO.	DESCRIPTION	DATE
TR-STD_INDEX	TRAFFIC STANDARD SHEET INDEX	4/2017
TR-1002_01	TRAFFIC CONTROL FOUNDATIONS	1/2014
TR-1208_01	SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS	8/2018
TR-1208_02	METAL SIGN POSTS AND SIGN MOUNTING DETAILS	6/2017
TR-1210_04	PAVEMENT MARKING LINES AND SYMBOLS	8/2018
TR-1210_08	PAVEMENT MARKINGS FOR NON FREEWAYS	8/2018
TR-1220_01	SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS	8/2018
TR-1220_02	CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES	8/2018
TR-GS_01	SIGN FACE SHEET ALUMINUM - R-SERIES TYPICAL SIGN DETAILS	10/2021
TR-GS_02	SIGN FACE SHEET ALUMINUM - S&W-SERIES TYPICAL SIGN DETAILS	10/2021
N/A	DISTRICT 1 ENCROACHMENT PERMIT PAVEMENT REPAIR (AS OF 4/24/2023)	

DESIGNED BY:  
TOWN OF MANCHESTER  
ENGINEERING DIVISION  
  
JOHN E. DIBIASI  
ASSISTANT TOWN ENGINEER  
P.E. NO. 29376

APPROVED BY:  
  
JEFF LALALVA  
TOWN ENGINEER

GENERAL NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "MANCHESTER PUBLIC IMPROVEMENT STANDARDS", EFFECTIVE OCTOBER 31, 2020, AS AMENDED AND THE STATE OF CONN. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, DATED 2020, INCLUDING ANY SUPPLEMENTS.

2. ALL ELEVATIONS ARE BASED ON THE TOWN OF MANCHESTER CONTROL NETWORK.

3. IMPLEMENTING WORKER SAFETY AND HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH ALL RULES, LAWS AND REGULATIONS REGARDING SAFETY AND RISK OF EXPOSURE TO PHYSICAL AND CHEMICAL HAZARDS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ALL EMPLOYEES OF THE CONTRACTOR AND SUBCONTRACTORS ARE TO WEAR REFLECTIVE VESTS AND HARD HATS AT ALL TIMES WHEN ON THE PROJECT SITE.

4. A PRECONSTRUCTION MEETING WITH TOWN STAFF IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

5. IT IS ANTICIPATED THAT IMPROVEMENTS IDENTIFIED ON THE PLANS AS BEING COMPLETED "BY OTHERS" WILL BE DONE PRIOR TO OR AT THE BEGINNING STAGES OF CONSTRUCTION.

6. THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB MONUMENTATION THAT MAY BE PRESENT BENEATH OR IN CLOSE PROXIMITY TO CONCRETE SIDEWALKS THROUGHOUT THE PROJECT AREA (PARTICULARLY NEAR INTERSECTIONS). IMMEDIATELY NOTIFY THE ENGINEER IF SUCH MONUMENTATION IS ENCOUNTERED.

7. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS AND PAY ASSOCIATED FEES PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR MUST OBTAIN AN ENCROACHMENT PERMIT FROM THE STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, PRIOR TO BEGINNING WORK WITHIN THE U.S. ROUTES 6 & 44 (E CENTER STREET) RIGHT-OF-WAY AND SHALL BE RESPONSIBLE FOR ALL ASSOCIATED FEES AND REQUIREMENTS.

8. THE CONTRACTOR SHALL CONFINE ALL OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES WITHIN THE STREET LINE UNLESS SHOWN OTHERWISE ON THE PLANS.

9. THE CONTRACTOR SHALL MAINTAIN FOUR LANES OF TRAFFIC ON U.S. ROUTES 6 & 44 (E CENTER STREET) BETWEEN THE HOURS OF 7:00 A.M. AND 8:30 A.M. AND BETWEEN 4:30 P.M. AND 5:30 P.M. EVERY DAY. IT IS ANTICIPATED THE ROAD WILL REMAIN OPEN AT ALL TIMES SUBJECT TO THE FINAL DOT REQUIREMENTS TO BE DETERMINED DURING THE DOT ENCROACHMENT PERMIT REVIEW.

10. THE CONTRACTOR SHALL COMMIT SUFFICIENT RESOURCES TO THE PROJECT TO ENSURE THE PROJECT IS COMPLETED WITHIN THE ALLOTTED CONTRACT TIME. ONCE MOBILIZED, THE CONTRACTOR SHALL WORK CONTINUOUSLY ON THE PROJECT UNTIL COMPLETION. ANY UNAUTHORIZED VACATING OF THE JOBSITE IS SUBJECT TO PENALTIES DESCRIBED UNDER THE "LIQUIDATED DAMAGES" SECTION OF THE CONTRACT SPECIFICATIONS.

11. THE CONTRACTOR SHALL NOT STORE CONSTRUCTION EQUIPMENT OR MATERIALS WITHIN THE PUBLIC RIGHT-OF-WAY.

12. NO WORK SHALL COMMENCE UNTIL ALL CONSTRUCTION AREA SIGNS ARE IN PLACE.

13. THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

14. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH TOPSOIL, FERTILIZED AND SEEDED AS PER THE SPECIFICATIONS. CONTRACTOR SHALL MAKE ALL EFFORTS TO MINIMIZE THE LIMITS OF DISTURBANCE AND ASSOCIATED RESTORATION THAT IS REQUIRED.

15. ANY DRIVEWAYS, SIDEWALKS, CURB AND LAWN AREAS LOCATED ON PRIVATE PROPERTY OR WITHIN THE RIGHT-OF-WAY THAT ARE IMPACTED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AS IDENTIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE REQUIRED LIMITS OF SUCH RESTORATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. RESTORATION ON PRIVATE PROPERTY SHALL BE COMPLETED AS PROMPTLY AS PRACTICAL WITHIN THIRTY (30) CALENDAR DAYS OF COMPLETING WORK ON THE PROPERTY.

16. ACTUAL LIMITS OF CURB INSTALLATION AND DRIVEWAY RECONSTRUCTION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL AVOID IMPACTS TO EXISTING DRIVEWAYS WHEREVER POSSIBLE TO MINIMIZE REQUIRED RECONSTRUCTION LIMITS.

17. ALL SEDIMENT CONTROL SYSTEMS SHALL MEET THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" AS PREPARED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, LATEST REVISION. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPAIR OF EROSION CONTROLS REQUIRED FOR THE PROJECT. ADDITIONAL EROSION CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR FOR TEMPORARY STOCKPILING OF EXCAVATED MATERIAL AND WHERE DEEMED NECESSARY BY THE ENGINEER. EROSION CONTROLS SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL THE SITE IS STABILIZED AND THE ENGINEER APPROVES THEIR REMOVAL.

18. SILT SACKS SHALL BE INSTALLED IN ALL EXISTING CATCH BASINS WITHIN THE PROJECT AREA AND WHERE DIRECTED BY THE ENGINEER. SILT SACKS SHALL BE THE APPROPRIATE TYPE FOR CATCH BASINS WITH AND WITHOUT CURB INLETS.

19. HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED WORK MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS WITH THE APPROVAL OF THE ENGINEER.

20. EXISTING INFORMATION SHOWN ON THESE PLANS WAS OBTAINED FROM TOWN OF MANCHESTER GIS DATA AND LIMITED FIELD SURVEY; AND THEREFORE, IS CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IF COITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN INFORMATION SHOWN ON THE PLANS. LIMITS OF NEW WORK SHALL BE STAKED IN THE FIELD PRIOR TO CONSTRUCTION WHERE APPROPRIATE.

21. THE EXISTENCE OF UTILITIES AND APPURTENANCES AS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. THE EXACT SIZE, LOCATION, TYPE, AND ELEVATION OF ALL UTILITIES WITHIN ALL WORK AREAS SHALL BE THOROUGHLY INVESTIGATED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AND MUST HAVE ALL UTILITIES MARKED ON THE GROUND PRIOR TO THE START OF CONSTRUCTION.

22. THE QUANTITIES AS INDICATED IN THE CONTRACT DOCUMENTS ARE
- APPROXIMATE AND MAY NOT INDICATE THE ACTUAL QUANTITIES OF WORK REQUIRED. THE CONTRACTOR MUST VERIFY ALL QUANTITIES.
23. SURPLUS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL DISPOSE OF SURPLUS EXCAVATED MATERIAL IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.

24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY HANDLING OF ALL STORMWATER RUNOFF DURING CONSTRUCTION. METHODS OF HANDLING RUNOFF SHALL BE APPROVED BY THE ENGINEER.

25. STREET CORNERS AND SIDEWALK RAMPS SHALL BE CONSTRUCTED TO PROVIDE POSITIVE DRAINAGE TOWARDS THE NEAREST CATCH BASIN TO PREVENT PONDING OF STORMWATER. SIDEWALK RAMPS MUST BE INSTALLED TO MATCH PROPOSED GUTTER ELEVATIONS WHICH SHOULD PROVIDE 4"-5" OF REVEAL ON EXISTING GRANITE CURB ADJACENT TO RAMPS.

26. ALL SIDEWALKS, DRIVEWAY APRONS AND SIDEWALK RAMPS SHALL BE CONSTRUCTED TO PROVIDE HANDICAPPED ACCESSIBILITY IN ACCORDANCE WITH THE CONNECTICUT BUILDING CODE.

27. ALL CONCRETE SIDEWALKS SHALL MATCH THE WIDTH AND ELEVATION OF EXISTING, ADJACENT CONCRETE SIDEWALKS. IN GENERAL, ALL CONCRETE SIDEWALKS WITHIN THE RIGHT-OF-WAY ARE TO BE 5' THICK AND 5' WDE.

28. CONCRETE SIDEWALK RAMPS ARE TO MATCH EXISTING CURB RADII UNLESS OTHERWISE NOTED AND HAVE A 5' MINIMUM RADIUS UNLESS NOTED OTHERWISE. THE ENGINEER WILL PROVIDE STAKES AS REQUIRED DURING CONSTRUCTION FOR LOCATIONS WITH RADII THAT VARY FROM EXISTING.

29. ALL CONCRETE SIDEWALK RAMPS SHALL BE INSTALLED WITH DETECTABLE WARNING TILES.

30. WHERE DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE SLEEVES FOR ALL SIGNS LOCATED WITHIN THE LIMITS OF PROPOSED CONCRETE SIDEWALK.

31. FOR SIDEWALKS AND RAMPS, A CLEARANCE OF 48" (36" MINIMUM) MUST BE PROVIDED BETWEEN ANY OBSTRUCTION AND THE BACK EDGE OF THE SIDEWALK AND RAMP OR FACE OF CURB.

32. ANY CLEARING OF BRUSH WITHIN PROPOSED GRADING LIMITS WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE GENERAL COST OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY TREES REQUIRING REMOVAL PRIOR TO CONSTRUCTION, SUCH WORK SHALL BE COMPLETED "BY OTHERS".

33. THE CONTRACTOR SHALL PERFORM ALL THREE (3) TEST PITS IDENTIFIED ON THE PLANS WITHIN 14 CALENDAR DAYS OF RECEIVING THE NOTICE TO PROCEED. CONTACT THE ENGINEERING DIVISION AT (860) 647-5211 AT LEAST 48 HOURS BEFORE PERFORMING TEST PITS. TEST PIT DATA THAT INCLUDES ELEVATIONS, LOCATIONS, DIMENSIONS AND MATERIALS OF ASSOCIATED UTILITIES MUST BE PROVIDED TO THE TOWN IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS IMMEDIATELY AFTER COMPLETION OF FIELD INVESTIGATIONS. HORIZONTAL LOCATION OF EXISTING UTILITIES MUST BE IDENTIFIED BY FIELD SURVEY OR A MINIMUM OF TWO (2) TIES FROM BUILDING OR OTHER FIXED PHYSICAL FEATURE SHOWN ON THE PLANS AND VERTICAL LOCATIONS MUST BE DETERMINED BASED ON PROJECT BENCHMARK ELEVATIONS. ADDITIONAL TEST PITS MAY BE REQUIRED AND HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED WORK MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS WITH THE APPROVAL OF THE ENGINEER.

34. THE TOWN IS IN THE PROCESS OF SECURING RIGHTS FROM PRIVATE PROPERTY OWNERS TO ENTER IMPACTED PROPERTIES TO COMPLETE WORK SHOWN ON THE CONTRACT PLANS. THE CONTRACTOR SHALL CONFIRM APPROVALS HAVE BEEN OBTAINED BY THE TOWN PRIOR TO PERFORMING WORK ON PRIVATE PROPERTY.

35. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER OF #167 E CENTER STREET; #193 E CENTER STREET; AND #220 E CENTER STREET, OR THEIR REPRESENTATIVES DURING CONSTRUCTION TO SCHEDULE WORK TO MINIMIZE IMPACTS TO OPERATIONS AT THEIR SITES.

36. ALL CONCRETE AND TEMPORARY BITUMINOUS CONCRETE SIDEWALKS SHALL MATCH THE WIDTH AND ELEVATION OF EXISTING, ADJACENT CONCRETE SIDEWALKS.
- | TEST PITS  |                             |                |
|------------|-----------------------------|----------------|
| TEST PIT # | LOCATION                    | UTILITY        |
| 1          | #193 E CENTER ST            | TELE DUCT BANK |
| 2          | #192 E CENTER ST            | TELE DUCT BANK |
| 3          | #220 E CENTER ST (CEMETERY) | TELE DUCT BANK |
- PICTORIAL SECTION A-A**

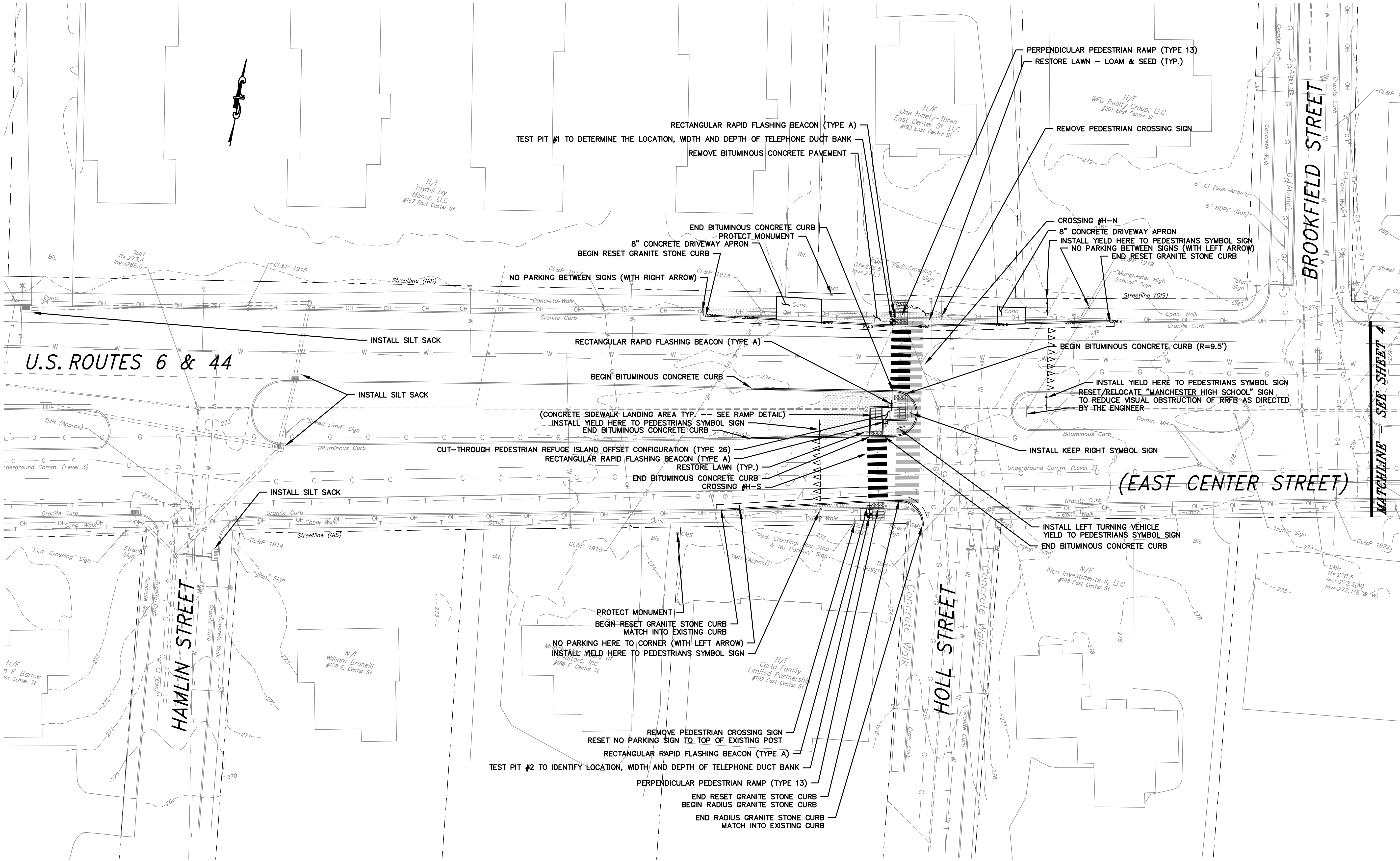
**TRAFFIC CONTROL FOUNDATION  
PEDESTAL - TYPE I - PRECAST**

NOTES:

PLACE NO. 6 CRUSHED STONE IN CENTER OPENING AFTER CONDUITS AND GROUND ROD HAVE BEEN INSTALLED.
- 
- TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191
- | LEGEND |                           |
|--------|---------------------------|
|        | = WETLANDS BOUNDARY       |
|        | = RETAINING WALL          |
|        | = GLADE RAIL              |
|        | = STONE WALL              |
|        | = STOCKADE FENCE          |
|        | = WIRE FENCE              |
|        | = CHAIN LINK FENCE        |
|        | = PROPERTY LINE           |
|        | = RAILROAD TRACKS         |
|        | = SILT FENCE              |
|        | = CONCRETE MONUMENT       |
|        | = GRANITE MONUMENT        |
|        | = IRON PIPE               |
|        | = IRON ROD                |
|        | = CONTROL POINT           |
|        | = DRILL HOLE              |
|        | = BOLLARD                 |
|        | = UTILITY POLE            |
|        | = UTILITY POLE WITH LIGHT |
|        | = TRAFFIC SPAN POLE       |
|        | = ELECTRIC BOX            |
|        | = WETLAND FLAG            |
|        | = LIGHT POLE              |
|        | = CONIFEROUS TREE         |
|        | = DECIDUOUS TREE          |
|        | = SANITARY MANHOLE        |
|        | = DRAINAGE MANHOLE        |
|        | = CATCH BASIN             |
|        | = CULVERT END             |
|        | = HYDRANT                 |
|        | = CURB STOP               |
|        | = WATER VALVE             |
|        | = BUTTERFLY VALVE         |
|        | = BLOW OFF                |
|        | = SIGN                    |
|        | = DOUBLE POST SIGN        |
|        | = MAIL BOX                |
|        | = CONTROLLER CABINET      |
|        | = GAS GATE                |
|        | = TELEPHONE BOX           |
|        | = CATV TUBE               |
- PROJECT NUMBER  
**2020103**
- FILENAME  
**2020103-DETAILS.DWG**
- | NO. | DATE     | FILE      |
|-----|----------|-----------|
| —   | 05/31/23 | BID PLANS |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
|     |          |           |
- DRAWN BY: **JD**  
CHECKED BY: **JD**  
RELEASED BY: **JL**
- DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
  
GRAPHIC SCALE
- DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88
- PROJECT LOCATION  
**EAST CENTER STREET  
MANCHESTER, CT**
- PROJECT TITLE  
**PEDESTRIAN  
IMPROVEMENTS**
- SHEET TITLE  
**GENERAL NOTES**
- SHEET NUMBER  
**2 of 9**
- R:\Project\Public Works\2020\103 - CDWG\Drawings\2020\103-DETAILS.dwg, \$3/1/2023 12:25:57 PM, jdbhui



R:\Project\Public Works\2020\103-DESIGN3.dwg, 6/2/2023 3:16:04 PM, jldesai



- NOTES:
1. SEE TRAFFIC CONTROL SIGNAL PLAN HOLL STREET CROSSING FOR SIGNS AND ALL PAVEMENT MARKINGS
  2. ERADICATE ALL CONFLICTING PAVEMENT MARKINGS
  3. SPOT ELEVATIONS INDICATE EXISTING ELEVATIONS AT LOCATION OF NEW GUTTER LINE.
  4. SIDEWALK RAMPS ADJACENT TO GRANITE CURBING SHALL UTILIZE GRANITE CURBING.
  5. SIDEWALK RAMPS ADJACENT TO CONCRETE OR BITUMINOUS CONCRETE CURBING SHALL UTILIZE CONCRETE CURBING.
  6. GRANITE CURBING NECESSARY FOR SIDEWALK RAMP(S) TO BE PAID UNDER PAY ITEM: "6" CONCRETE SIDEWALK RAMP" AND WILL NOT BE PAID FOR SEPARATELY AS "GRANITE STONE CURB".
  7. "YIELD HERE TO PEDESTRIAN" SIGNS FINAL HEIGHT TO BE FIELD ADJUSTED TO REDUCE VISUAL OBSTRUCTION OF RRFB TO THE SATISFACTION OF THE ENGINEER.



TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191

LEGEND	
	WETLANDS BOUNDARY
	RETAINING WALL
	GLADE WALL
	STONE WALL
	STOCKADE FENCE
	WIRE FENCE
	CHAIN LINK FENCE
	PROPERTY LINE
	RAILROAD TRACKS
	SILT FENCE
	CONCRETE MONUMENT
	GRANITE MONUMENT
	IRON PIPE
	IRON ROD
	CONTROL POINT
	DRILL HOLE
	UTILITY POLE
	UTILITY POLE WITH LIGHT
	TRAFFIC SIGNAL POLE
	ELECTRIC BOX
	WETLAND FLAG
	LIGHT POLE
	CONIFEROUS TREE
	DECIDUOUS TREE
	SANITARY MANHOLE
	DRAINAGE MANHOLE
	CATCH BASIN
	CULVERT END
	HYDRANT
	CURB STOP
	WATER VALVE
	BUTTERFLY VALVE
	BLOW OFF
	SIGN
	DOUBLE POST SIGN
	MAIL BOX
	BOLLARD
	CONTROLLER CABINET
	GAS GATE
	TELEPHONE BOX
	CATV TUBE

PROJECT NUMBER  
2020103

FILENAME  
2020103-DESIGN3.DWG

NO.	DATE	FILE
1	05/31/23	BID PLANS

DRAWN BY:  
CHECKED BY: JD  
RELEASED BY: JL

DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
20 10 0 20  
GRAPHIC SCALE

DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION  
EAST CENTER STREET  
MANCHESTER, CT

PROJECT TITLE  
PEDESTRIAN  
IMPROVEMENTS

SHEET TITLE  
SITE PLAN  
HOLL ST CROSSING

SHEET NUMBER  
3 of 9



TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191

LEGEND	
	WETLANDS BOUNDARY
	RETAINING WALL
	STONE WALL
	STOCKADE FENCE
	WIRE FENCE
	CHAIN LINK FENCE
	PROPERTY LINE
	RAILROAD TRACKS
	SILT FENCE
	CONCRETE MONUMENT
	GRANITE MONUMENT
	IRON PIPE
	IRON ROD
	CONTROL POINT
	DRILL HOLE
	UTILITY POLE WITH LIGHT
	TRAFFIC SPAN POLE
	ELECTRIC BOX
	WETLAND FLAG
	LIGHT POLE
	CONIFEROUS TREE
	DECIDUOUS TREE
	SANITARY MANHOLE
	DRAINAGE MANHOLE
	CATCH BASIN
	CULVERT END
	HYDRANT
	CURB STOP
	WATER VALVE
	BUTTERFLY VALVE
	BLOW OFF
	SIGN
	DOUBLE POST SIGN
	MAIL BOX
	BOLLARD
	CONTROLLER CABINET
	GAS GATE
	TELEPHONE BOX
	CATY TUBE

PROJECT NUMBER  
2020103

FILENAME  
2020103-DESIGN2.DWG

NO.	DATE	FILE
1	05/31/23	BID PLANS

DRAWN BY:  
CHECKED BY: JD  
RELEASED BY: JL

DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
20 10 0 20  
GRAPHIC SCALE

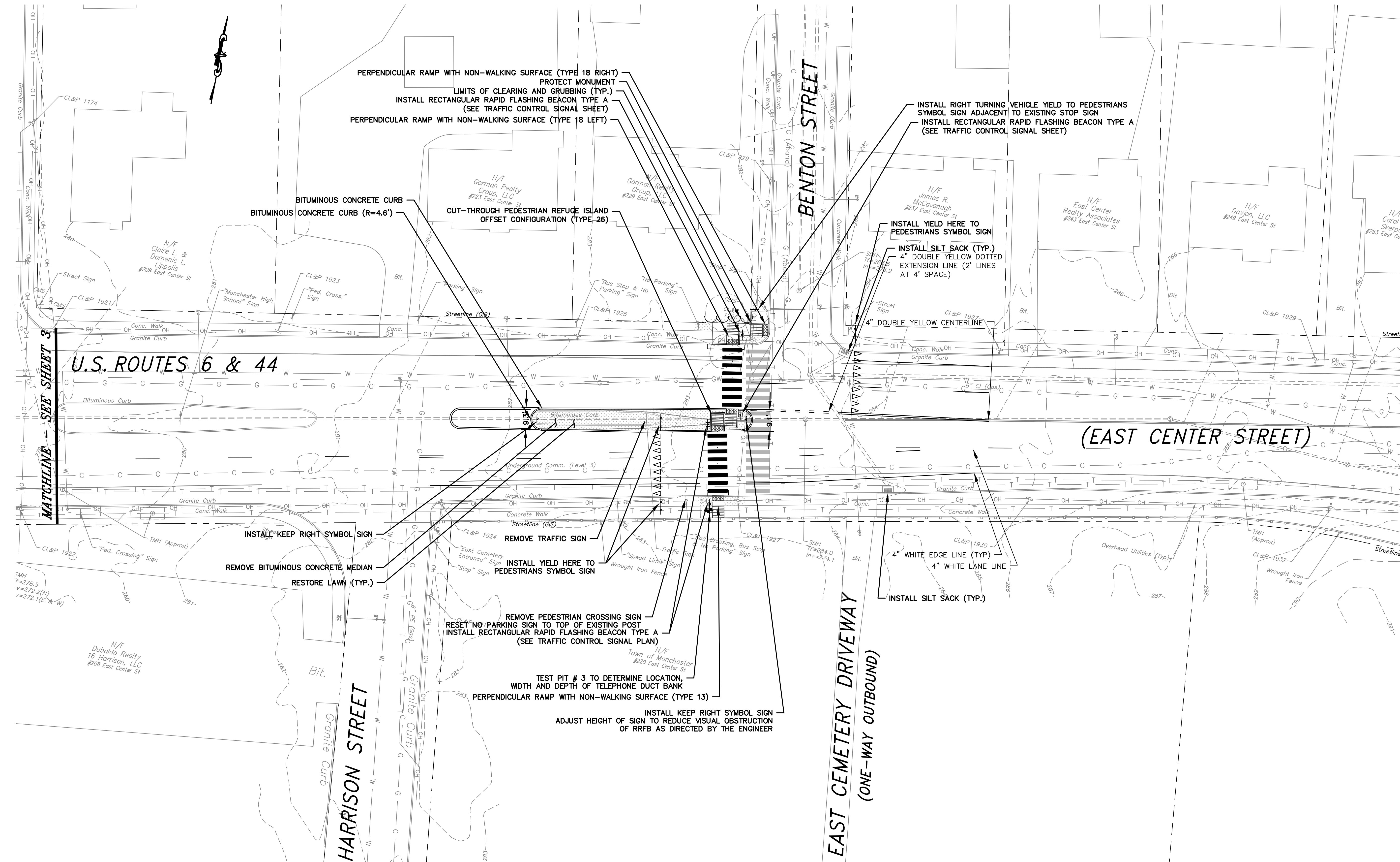
DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION  
EAST CENTER STREET  
MANCHESTER, CT

PROJECT TITLE  
PEDESTRIAN  
IMPROVEMENTS

SHEET TITLE  
SITE PLAN  
BENTON ST CROSSING

SHEET NUMBER  
4 of 9



- NOTES:
- SEE TRAFFIC CONTROL SIGNAL PLAN - BENTON STREET CROSSING FOR SIGNING AND ALL PAVEMENT MARKINGS.
  - ERADICATE ALL CONFLICTING PAVEMENT MARKINGS
  - LOCATE EXISTING E CENTER ST SANITARY SEWER AND CONFIRM RFRB PEDESTAL LOCATIONS WITH ENGINEER PRIOR TO INSTALLING THE PEDESTAL FOUNDATIONS. LOCATION MAY NEED FIELD ADJUSTING TO NOT OBSTRUCT SANITARY SEWER ACCESS.
  - SIDEWALK RAMPS ADJACENT TO GRANITE CURBING SHALL UTILIZE GRANITE CURBING.
  - SIDEWALK RAMPS ADJACENT TO CONCRETE OR BITUMINOUS CONCRETE CURBING SHALL UTILIZE CONCRETE CURBING.
  - GRANITE CURBING NECESSARY FOR SIDEWALK RAMP(S) TO BE PAID UNDER PAY ITEM "6" CONCRETE SIDEWALK RAMP" AND WILL NOT BE PAID FOR SEPARATELY AS "GRANITE STONE CURB."
  - "YIELD HERE TO PEDESTRIAN" SIGNS FINAL HEIGHT TO BE FIELD ADJUSTED TO REDUCE VISUAL OBSTRUCTION OF RFRB TO THE SATISFACTION OF THE ENGINEER.



[illegible]

ALL MATERIAL AND CONSTRUCTION METHODS SHALL CONFORM TO THE FOLLOWING CURRENT D.O.T. DOCUMENTS WHICH CAN BE ACCESSED ON THE CTDOT WEBSITE:

- STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION (FORM 818)
- SUPPLEMENTAL SPECIFICATIONS TO FORM 818.
- STANDARD INSTALLATION AND GUIDE DETAIL SHEETS.

ALL TRAFFIC EQUIPMENT IS NEW.

STAKE ALL R.O.W. PRIOR TO EXCAVATION.

ANY PROPOSED REVISIONS TO THE LOCATION OF THE APPURTENANCES SHOWN ON THE PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE TOWN PRIOR TO INSTALLATION.

THE LOCATION OF TRAFFIC SIGNAL FOUNDATIONS WHEN IN OR ADJACENT TO SIDEWALKS SHALL BE VERIFIED PRIOR TO INSTALLATION TO PROVIDE A FREE PATH OF NOT LESS THAN 4 FEET. IF A MINIMUM 4 FOOT FREE PATH IS UNAVAILABLE NOTIFY THE ENGINEER AND CONTACT THE TOWN.

COORDINATE WITH UTILITY COMPANY REPRESENTATIVES LISTED IN THE SPECIAL PROVISION, 1.07 – LEGAL RELATIONS AND RESPONSIBILITIES.

CONTRACTOR TO VERIFY LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO INSTALLING PEDESTAL FOUNDATIONS.

REMOVE ALL ABANDONED TRAFFIC SIGNAL EQUIPMENT PER SPECIAL PROVISION.

ADVANCED PEDESTRIAN WARNING SIGN ASSEMBLIES TO NOT HAVE RETROREFLECTIVE STRIPS PER CTDOT TRAFFIC ENGINEERING (NEWINGTON).

### RECTANGULAR RAPID FLASHING BEACON (RRFB):

SEE SPECIAL PROVISION ITEM #1117111-A - RECTANGULAR RAPID FLASHING  
BEACON - TYPE A.

RRFB TYPES:  
TYPE A - SINGLE SIDED FLASHER AND SINGLE SIDED SIGNS. TO BE  
INSTALLED FACING ONCOMING TRAFFIC.

STAGGERED CROSSING OF EAST CENTER STREET:  
CROSSING #H-N PUSHBUTTONS TO ONLY ACTUATE RRFB & ILLUMINATORS  
INSTALLED ADJACENT TO CROSSING #H-N.  
CROSSING #H-S PUSHBUTTONS TO ONLY ACTUATE RRFB & ILLUMINATORS  
INSTALLED ADJACENT TO CROSSING #H-S.

ALL RRFB TYPES TO BE EQUIPPED WITH CROSSWALK ILLUMINATOR. TAPCO  
SAFEWALK OR APPROVED EQUAL AT ALL RRFB LOCATIONS. FINAL PLACEMENT  
TO BE INSTALLED AS DIRECTED BY THE MANUFACTURER'S REPRESENTATIVE.  
LIGHTS TO ACTUATE DUSK TO DAWN IN UNISON WITH SYSTEM ACTIVATION.

RECTANGULAR RAPID FLASHING BEACON TO BE PEDESTRIAN ACTUATED,  
SOLAR POWERED AND WIRELESS ACTIVATED.

INSTALL RRFB ASSEMBLIES ON 14' PEDESTALS.

INSTALL PEDESTAL FOUNDATIONS ADJACENT TO THE LANDING AREAS.  
CONTRACTOR TO ENSURE MINIMUM 36" ADA CLEAR PATH IS PROVIDED  
ADJACENT TO AND AROUND PEDESTAL FOUNDATIONS.

CONTRACTOR TO ERADICATE AND INSTALL PAVEMENT MARKINGS AS INDICATED BELOW:

- REVISE ALL PAVEMENT MARKINGS ASSOCIATED WITH THE CROSSWALK REVISIONS AS SHOWN.
- INSTALL BAR TYPE CROSSWALKS (24" - 16" x 8' MIN.)
- ERADICATE ANY CONFLICTING PAVEMENT MARKINGS.



CROSSING #H-S (E CTR ST AT HOLL ST SOUTHERLY CROSSWALK)


SIGN LEGEND:


- ① INSTALL RECTANGULAR RAPID FLASHING BEACON ASSEMBLY TYPE A  
(TOWN OWNED AND MAINTAINED)

- (E) INSTALL 31-0613L NO PARKING HERE TO CORNER  
(WITH LEFT ARROW)





- (F) INSTALL **PARKING BETWEEN SIGNS** 31-0625L NO PARKING BETWEEN SIGNS (WITH LEFT ARROW)


- (G) INSTALL  31-0625R NO PARKING BETWEEN SIGNS  
(WITH RIGHT ARROW)

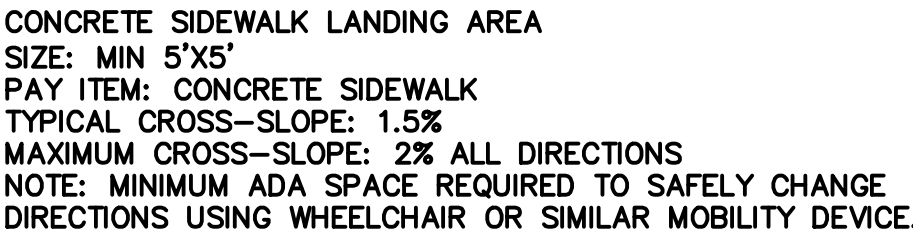
- |             |   |         |                          |
|-------------|---|---------|--------------------------|
| (H) INSTALL |  | 41-4830 | (36" PEDESTRIAN WARNING) |
|             |   | 41-6126 | (24"x12" "AHEAD")        |

- ① REMOVE EXISTING (PEDESTRIAN WARNING SIGN AND DISTANCE SUBPLATE)

- (B) INSTALL  31-0512 (YIELD HERE TO PEDESTRIANS SYMBOL SIGN)

- 
 31-1526 (KEEP RIGHT SYMBOL SIGN)

- (D) INSTALL  31-1626 (LEFT TURNING VEHICLES YIELD TO PEDESTRIANS SYMBOL SIGN)



NOTES:

TOWN TO MAINTAIN ALL SIGNS AND PAVEMENT MARKINGS.

- (S) INSTALL BAR TYPE CROSSWALK (16" X 24" X 8') - STATE MAINTAINED
- (Y) INSTALL YIELD LINE - STATE MAINTAINED








SEE SEPARATE SITE DESIGN SHEET FOR NON-TRAFFIC SIGNAL EQUIPMENT ITEMS

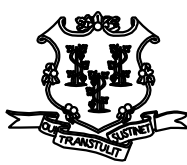
RRFB LEGEND (NTS):

- ☐ PEDESTAL MOUNTED SIGN(S)
- ☐ PEDESTAL FOUNDATION & MOUNTING
- ☐ PEDESTRIAN PUSH BUTTON & SIGN
- ☒ DIRECTIONAL ARW. FOR PUSH BUTTO

- 
 TYPE A RRFB  
(SINGLE SIDED)
 
 TYPE B RRFB  
(BACK-TO-BACK)

- |  |                     |  |                       |
|--|---------------------|--|-----------------------|
|  | PROPOSED CONTROLLER |  | VC VIDEO CAMERA CABLE |
|  | EXISTING CONTROLLER |  | CABLE CLOSURE         |
|  | LOOP DETECTOR       |  | WIRELESS SENSOR       |
|  | SYSTEM DETECTOR     |  | WIRELESS RECEIVER     |
|  | MAGNETIC DETECTOR   |  | WIRELESS TRANSCIVER   |
|  | OPTICAL DETECTOR    |  | GUY WIRE              |
|  | VIDEO DETECTOR      |  | PROPOSED HANDHOLE     |
|  | AUDIO DETECTOR      |  | EXISTING HANDHOLE     |

- VC VIDEO CAMERA CABLE  
 CABLE CLOSURE  
 WIRELESS SENSOR  
 WIRELESS RECEIVER  
 WIRELESS TRANSCEIVER  
 GUY WIRE  
 PROPOSED HANDHOLE  
 EXISTING HANDHOLE



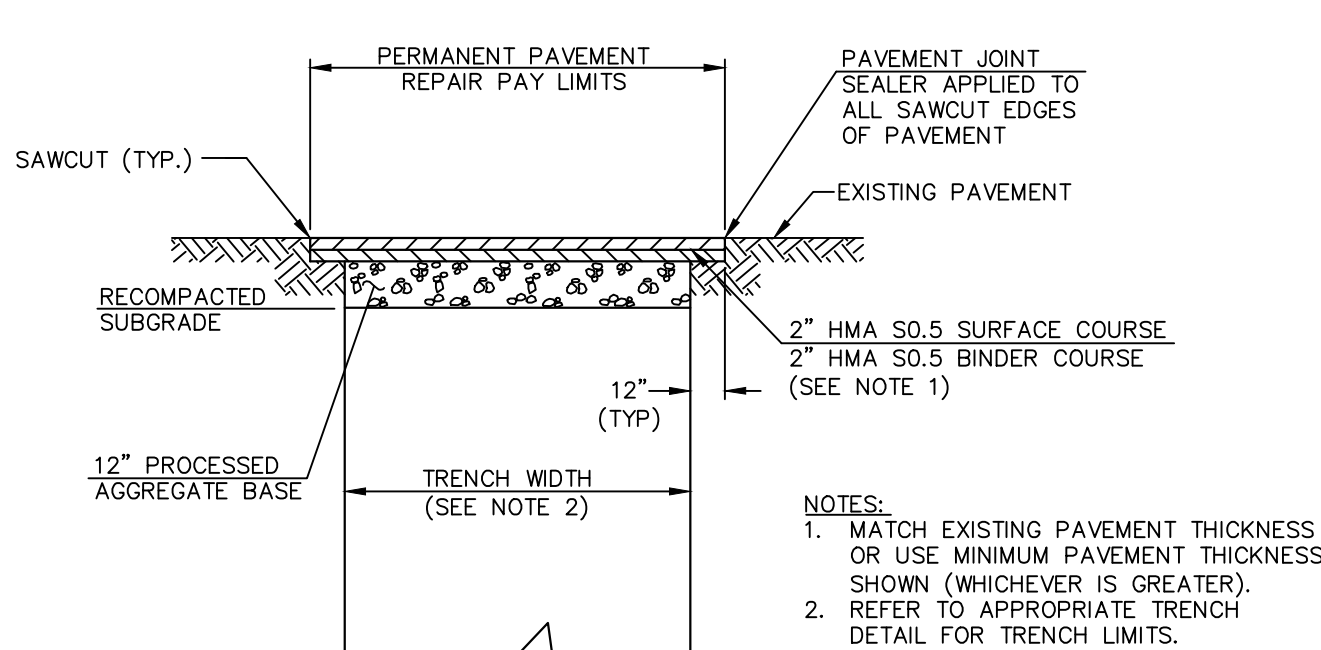
STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



SCALE 1" = 20'

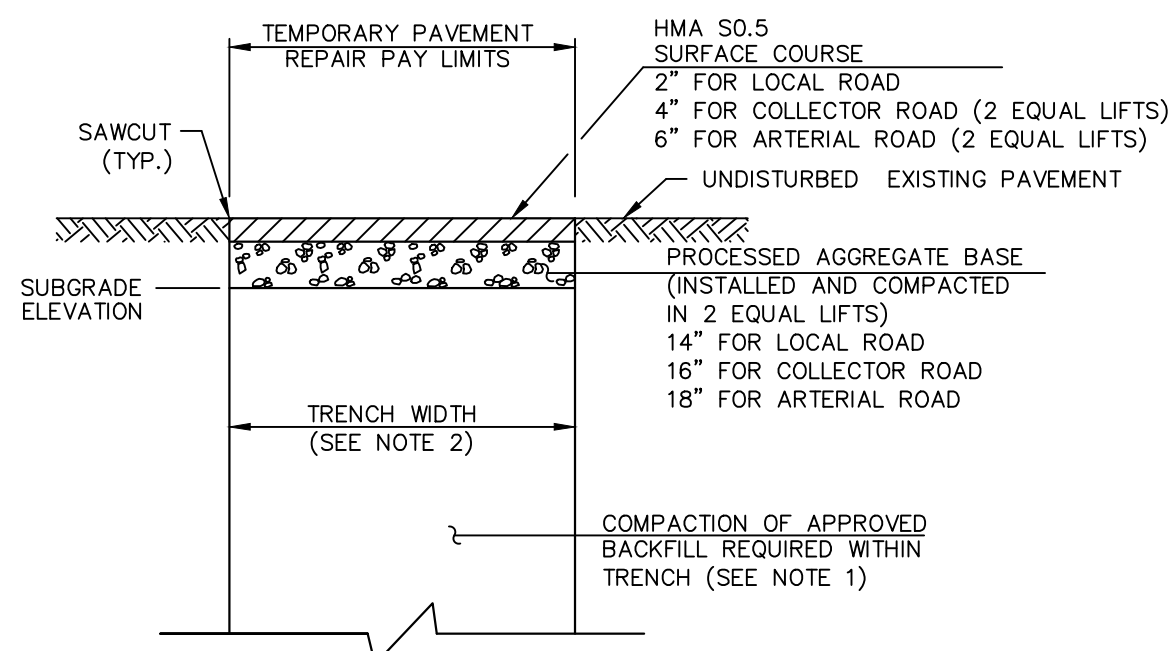
MOVEMENT DIAGRAM																													
NTOR			PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8					





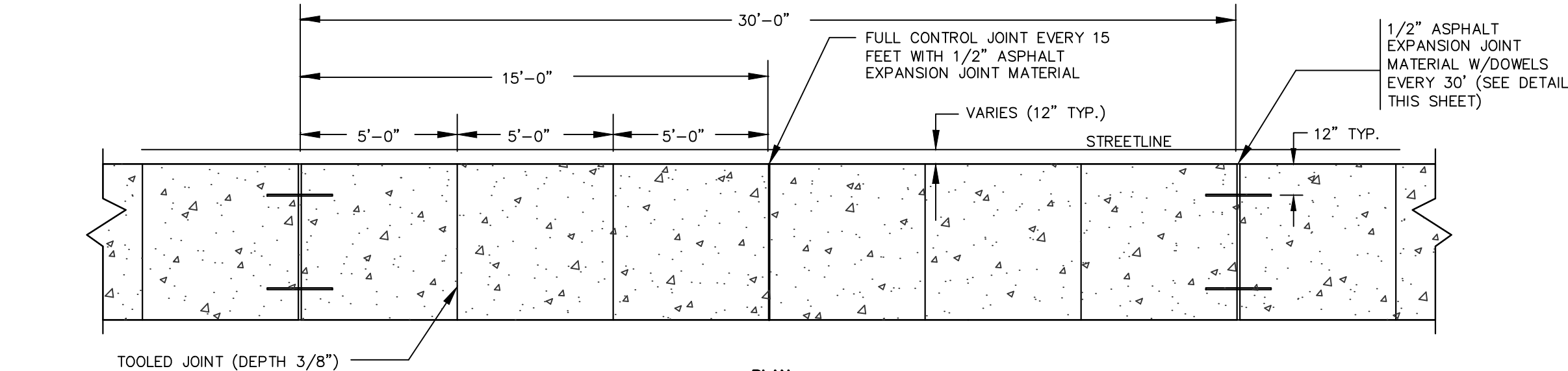
## PERMANENT PAVEMENT REPAIR (LOCAL ROAD)

NOT TO SCALE



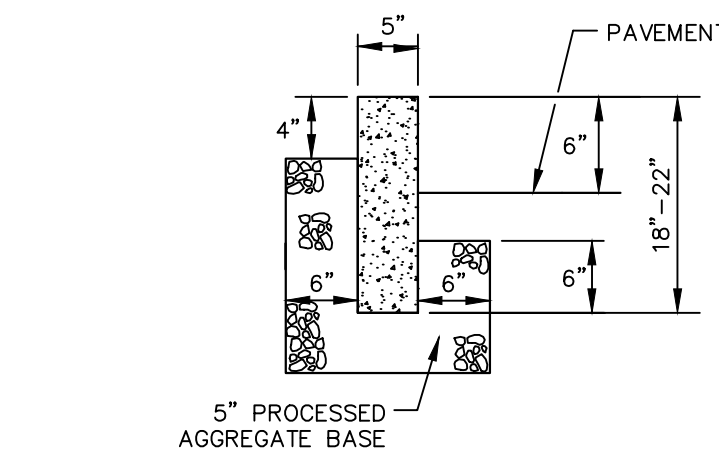
## TEMPORARY PAVEMENT REPAIR

NOT TO SCALE



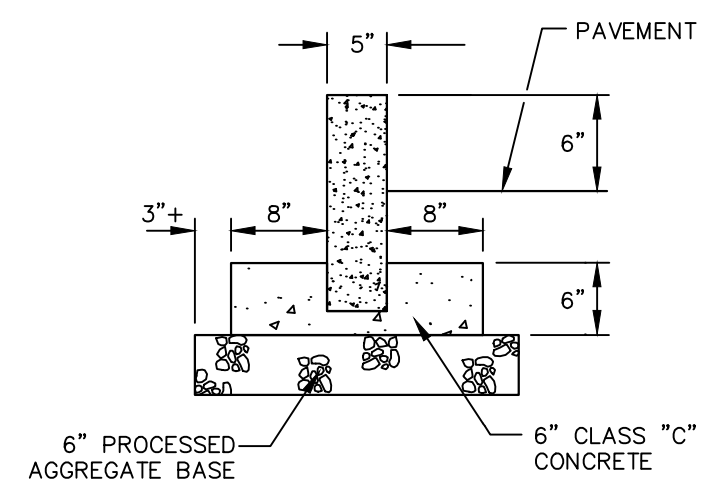
## 5" CONCRETE SIDEWALK

NOT TO SCALE



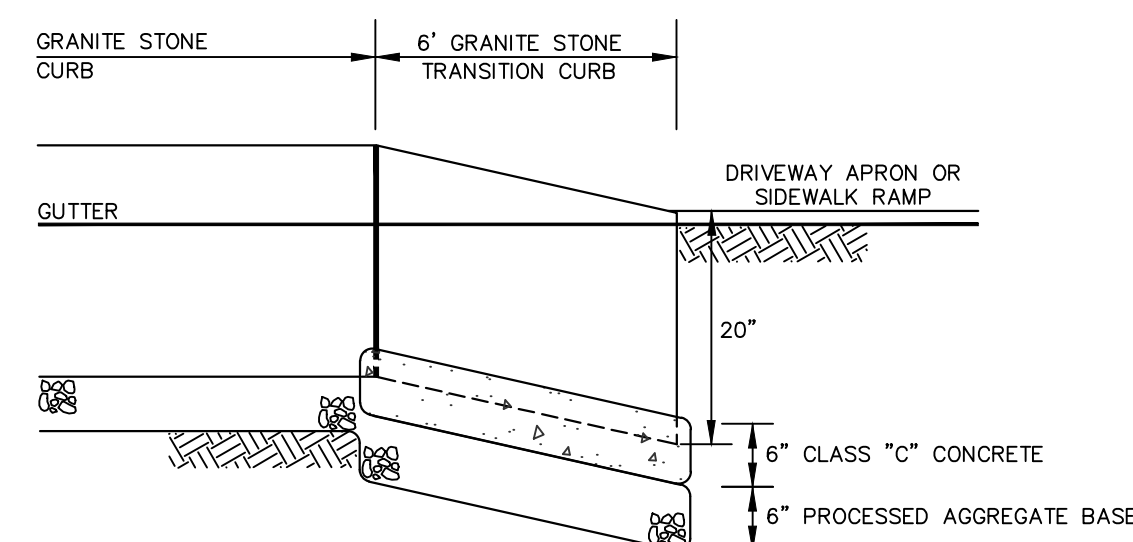
## GRANITE STONE CURB (PAY ITEMS: "GRANITE STONE CURB" AND "RESET GRANITE STONE CURB")

NOT TO SCALE



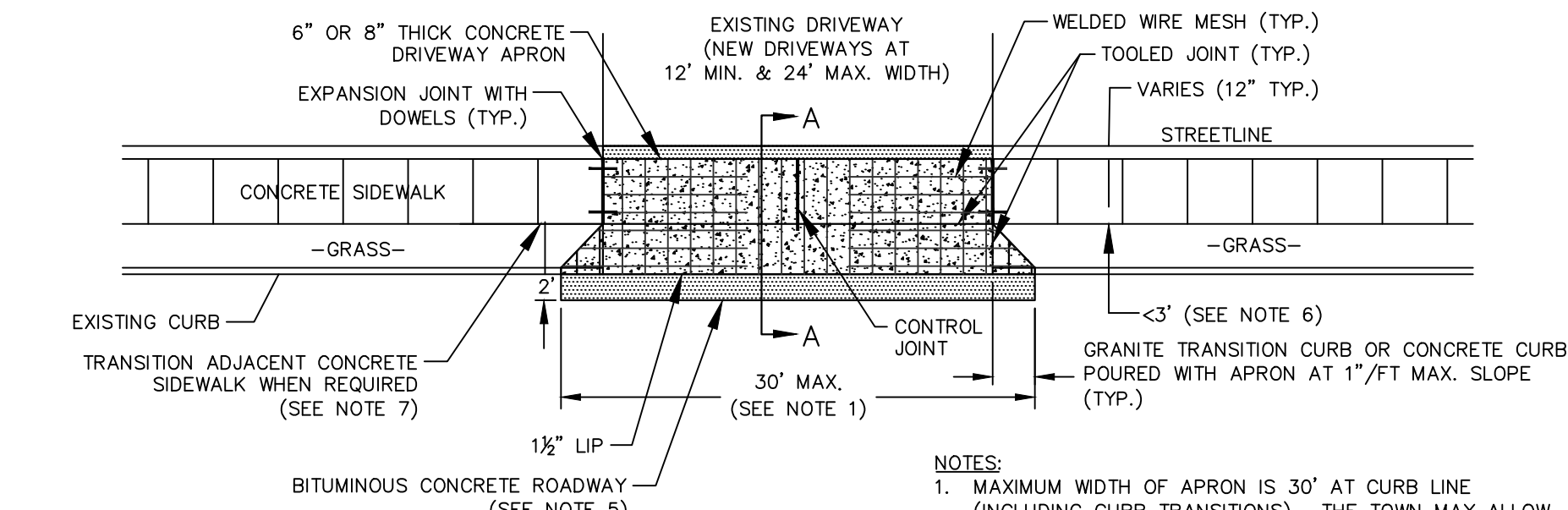
## RADIUS GRANITE CURB

NOT TO SCALE



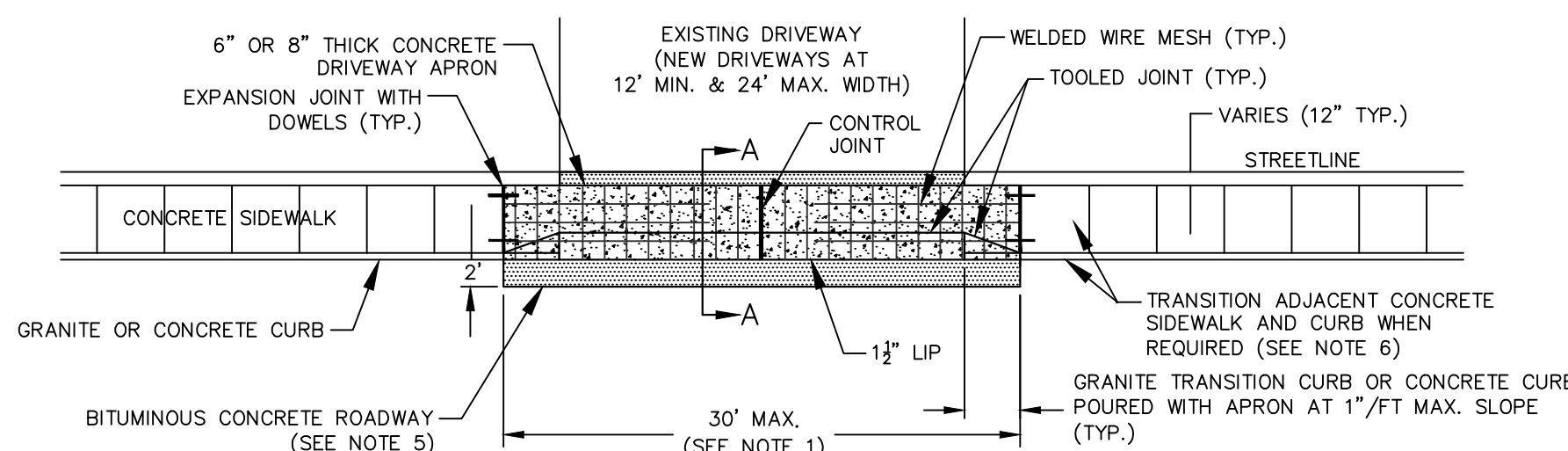
## GRANITE STONE TRANSITION CURB

NOT TO SCALE



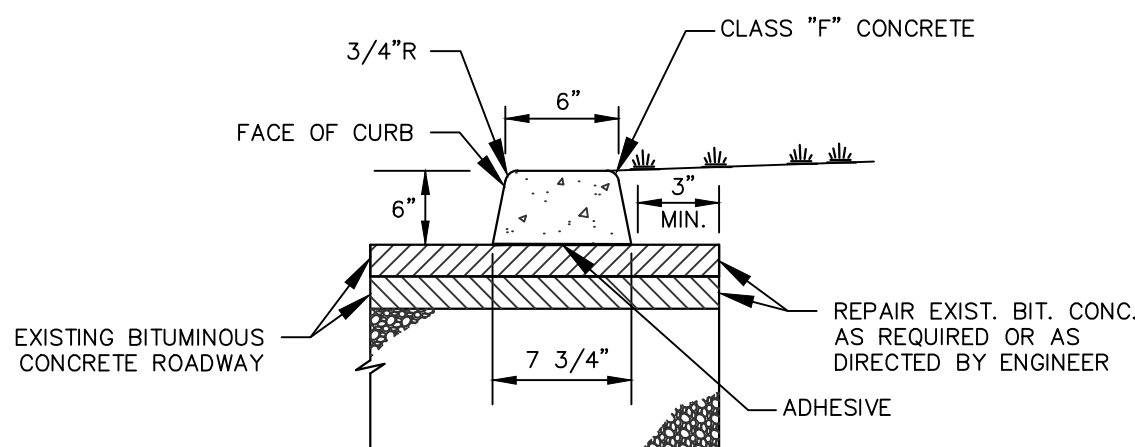
## CONCRETE DRIVEWAY APRON

NOT TO SCALE



## CONCRETE DRIVEWAY APRON

NOT TO SCALE



TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191

LEGEND	
—	WETLANDS BOUNDARY
—	RETAINING WALL
—	GLIDE RAIL
—	STONE WALL
—	STOCKADE FENCE
—	WIRE FENCE
—	CHAIN LINK FENCE
—	PROPERTY LINE
—	RAILROAD TRACKS
—	SILT FENCE
—	CONCRETE MONUMENT
—	GRANITE MONUMENT
—	IRON PIPE
—	IRON ROD
—	CONTROL POINT
—	UTILITY POLE
—	UTILITY POLE WITH LIGHT
—	TRAVEL SPAN POLE
—	ELECTRIC BOX
—	WETLAND FLAG
—	LIGHT POLE
—	CONIFEROUS TREE
—	DECIDUOUS TREE
—	SANITARY MANHOLE
—	DRAINAGE MANHOLE
—	CATCH BASIN
—	CULVERT END
—	HYDRANT
—	CURB STOP
—	WATER VALVE
—	BUTTERFLY VALVE
—	BLOW OFF
—	SIGN
—	DOUBLE POST SIGN
—	MAIL BOX
—	BOLLARD
—	DRILL HOLE
—	CONTROLLER CABINET
—	GAS GATE
—	TELEPHONE BOX
—	CATV TUBE

PROJECT NUMBER  
**2020103**

FILENAME  
**2020103-DETAILS.DWG**

NO.	DATE	FILE
—	05/31/23	BID PLANS

DRAWN BY: **JD**  
CHECKED BY: **JD**  
RELEASED BY: **JL**

DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
20 10 0 20  
GRAPHIC SCALE

DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION  
**EAST CENTER STREET  
MANCHESTER, CT**

PROJECT TITLE  
**PEDESTRIAN  
IMPROVEMENTS**

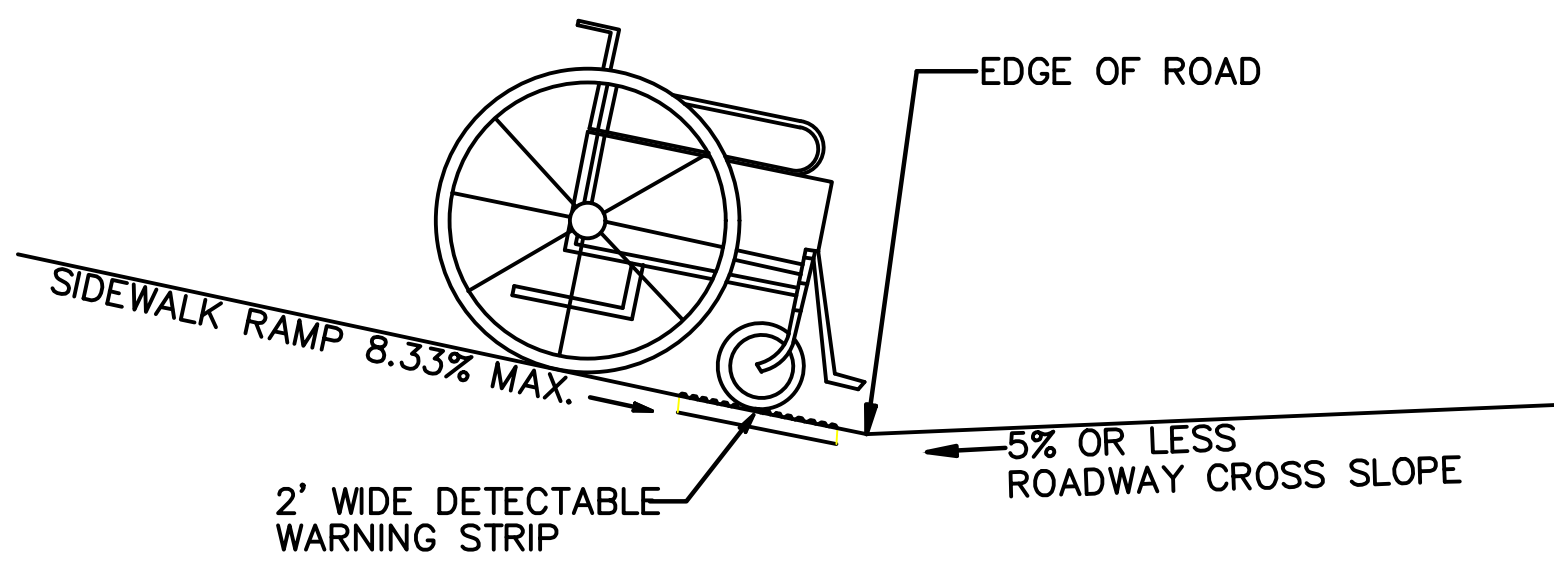
SHEET TITLE  
**DETAILS**

SHEET NUMBER  
**7 of 9**

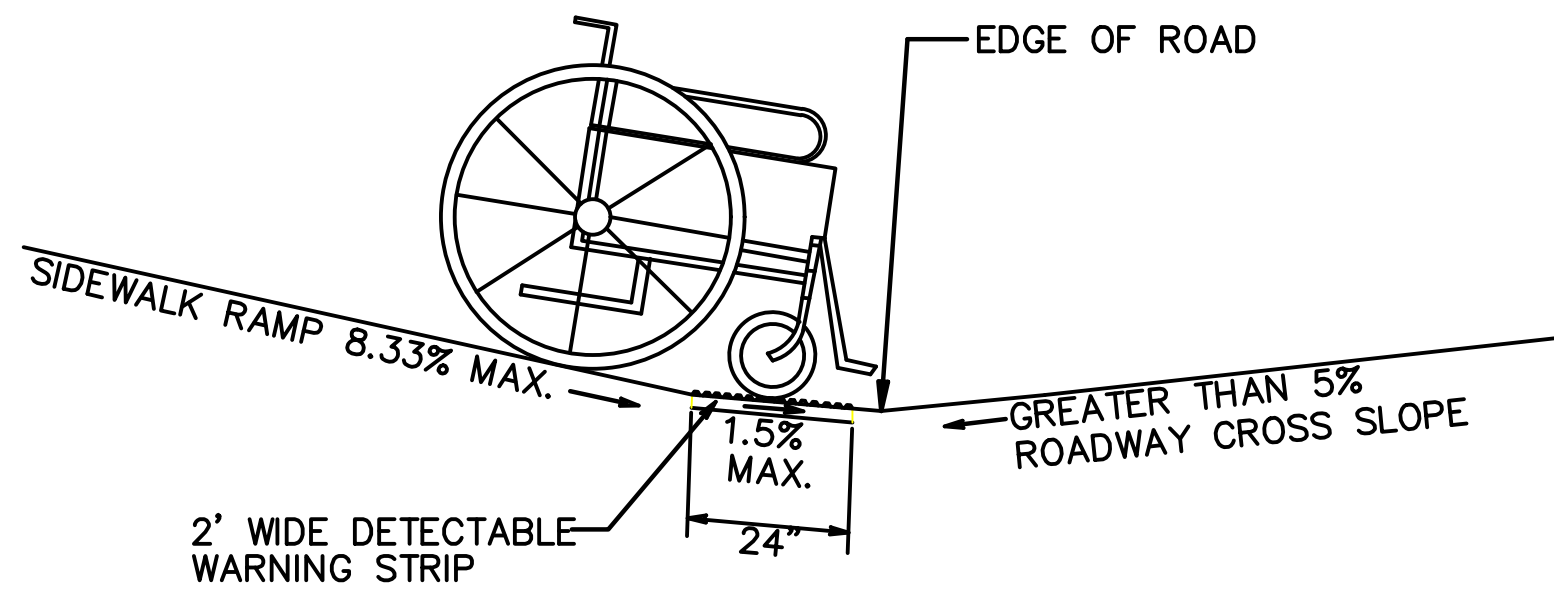


GENERAL NOTES:

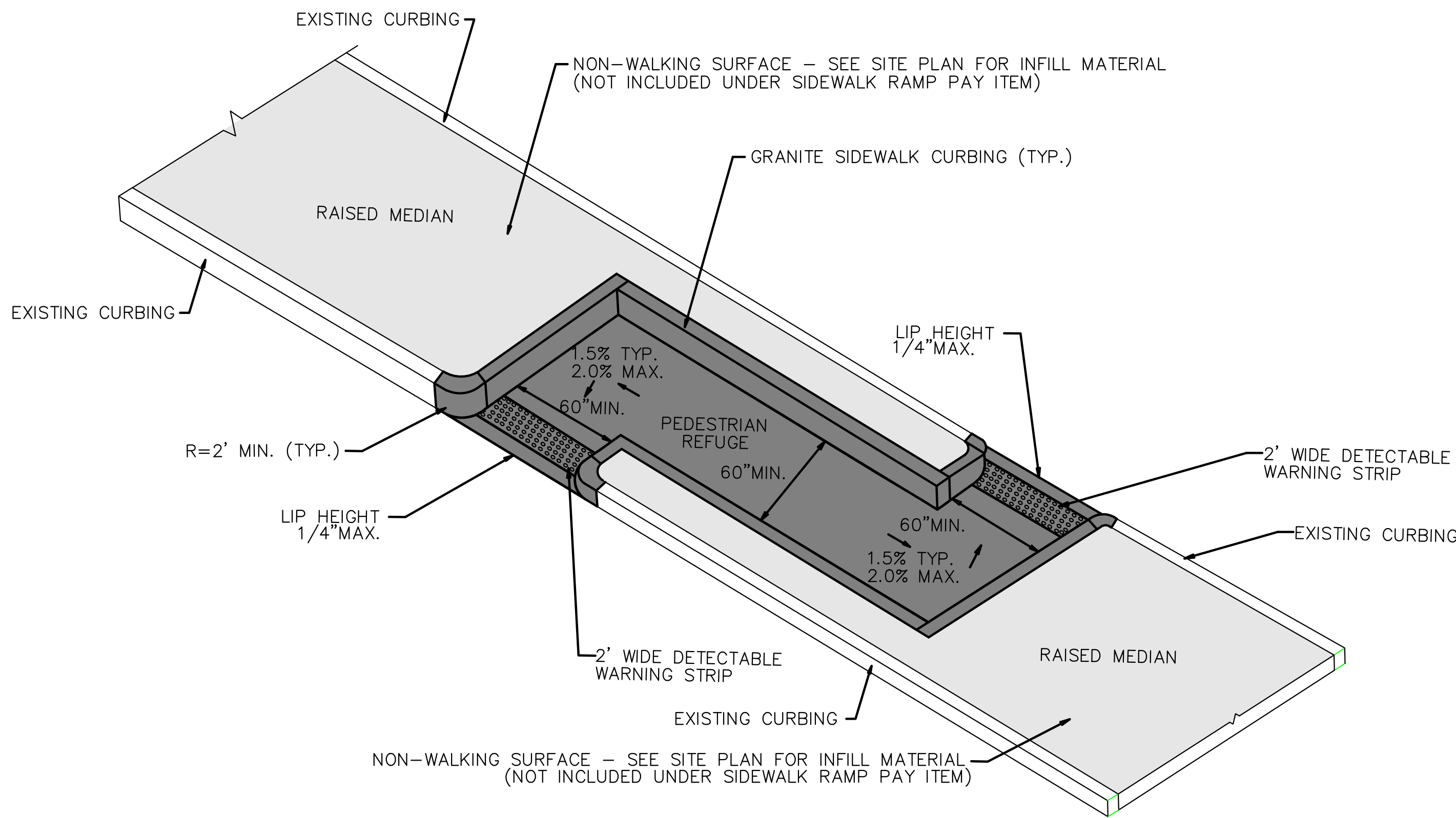
1. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRAVERSE TO THE SLOPE OF THE RAMP.
2. VERTICAL SURFACE DISCONTINUITIES AT JOINTS SHALL NOT EXCEED 1/4 INCH.
3. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT.
4. THE RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.33 PERCENT MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET.



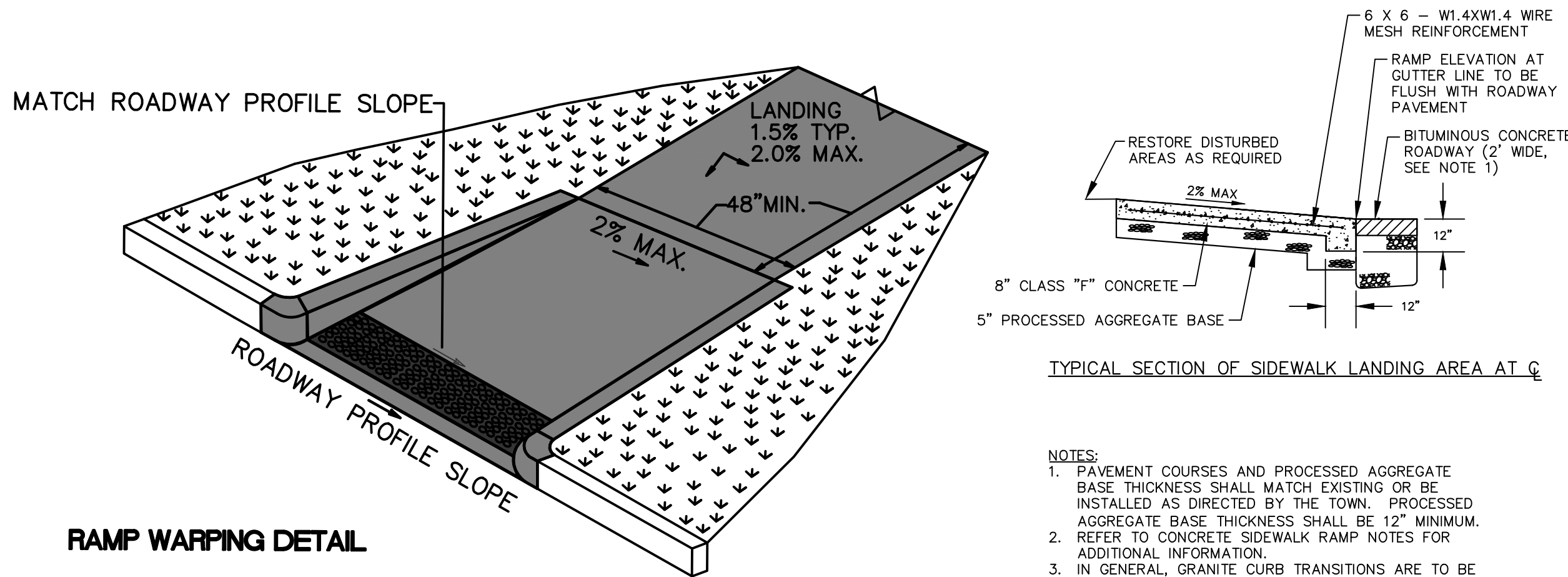
SIDEWALK RAMP GRADE AT  
ROADWAY CROSS SLOPE OF 5% OR LESS



SIDEWALK RAMP GRADE AT  
ROADWAY CROSS SLOPE OF GREATER THAN 5%



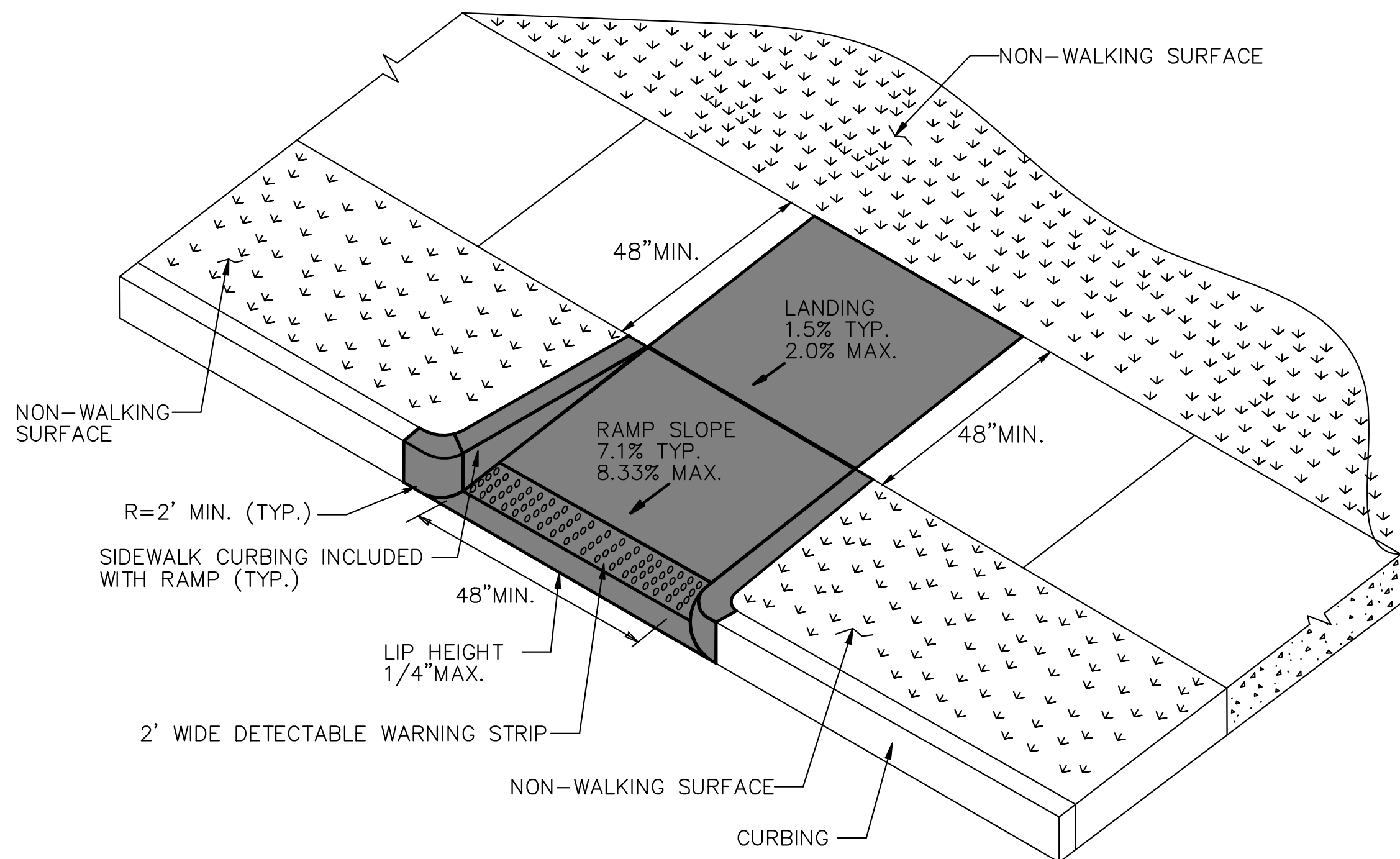
CTDOT TYPE 26 - CONCRETE SIDEWALK RAMP  
(CUT-THROUGH PEDESTRIAN REFUGE ISLAND - OFFSET CONFIGURATION)  
NOT TO SCALE



RAMP WARPING DETAIL

1. TRANSITION SIDEWALK RAMP TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3 % PER FOOT CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.
2. COMPLETE TRANSITION TO ROADWAY PROFILE BEHIND DETECTABLE WARNING SURFACE.

SIDEWALK RAMP NOTES  
(CTDOT GUIDE SHEETS/TOWN OF MANCHESTER)  
2020 P.I.S.



CTDOT TYPE 13 - CONCRETE SIDEWALK RAMP  
(PERPENDICULAR RAMP WITH NON-WALKING SURFACE)  
NOT TO SCALE



TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191

LEGEND	
WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GLIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
WIRE FENCE	CATCH BASIN
CHAIN LINK FENCE	HYDRANT
PROPERTY LINE	CURB STOP
RAILROAD TRACKS	WATER VALVE
SILT FENCE	BUTTERFLY VALVE
CONCRETE MONUMENT	BLOW OFF
GRANITE MONUMENT	SIGN
IRON PIPE	DOUBLE POST SIGN
IRON ROD	MAIL BOX
CONTROL POINT	BOLLARD
DRILL HOLE	UTILITY POLE
UTILITY POLE	CONTROLLER CABINET
UTILITY POLE WITH LIGHT	TRAVELER SIGN POLE
TRAVELER SIGN POLE	GAS GATE
ELECTRIC BOX	TELEPHONE BOX
WETLAND FLAG	CATV TUBE

PROJECT NUMBER  
2020103

FILENAME  
2020103-DETAILS.DWG

NO.	DATE	FILE
1	05/31/23	BID PLANS

DRAWN BY: JD  
CHECKED BY: JD  
RELEASED BY: JL

DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
20 10 0 20  
GRAPHIC SCALE

DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION  
EAST CENTER STREET  
MANCHESTER, CT

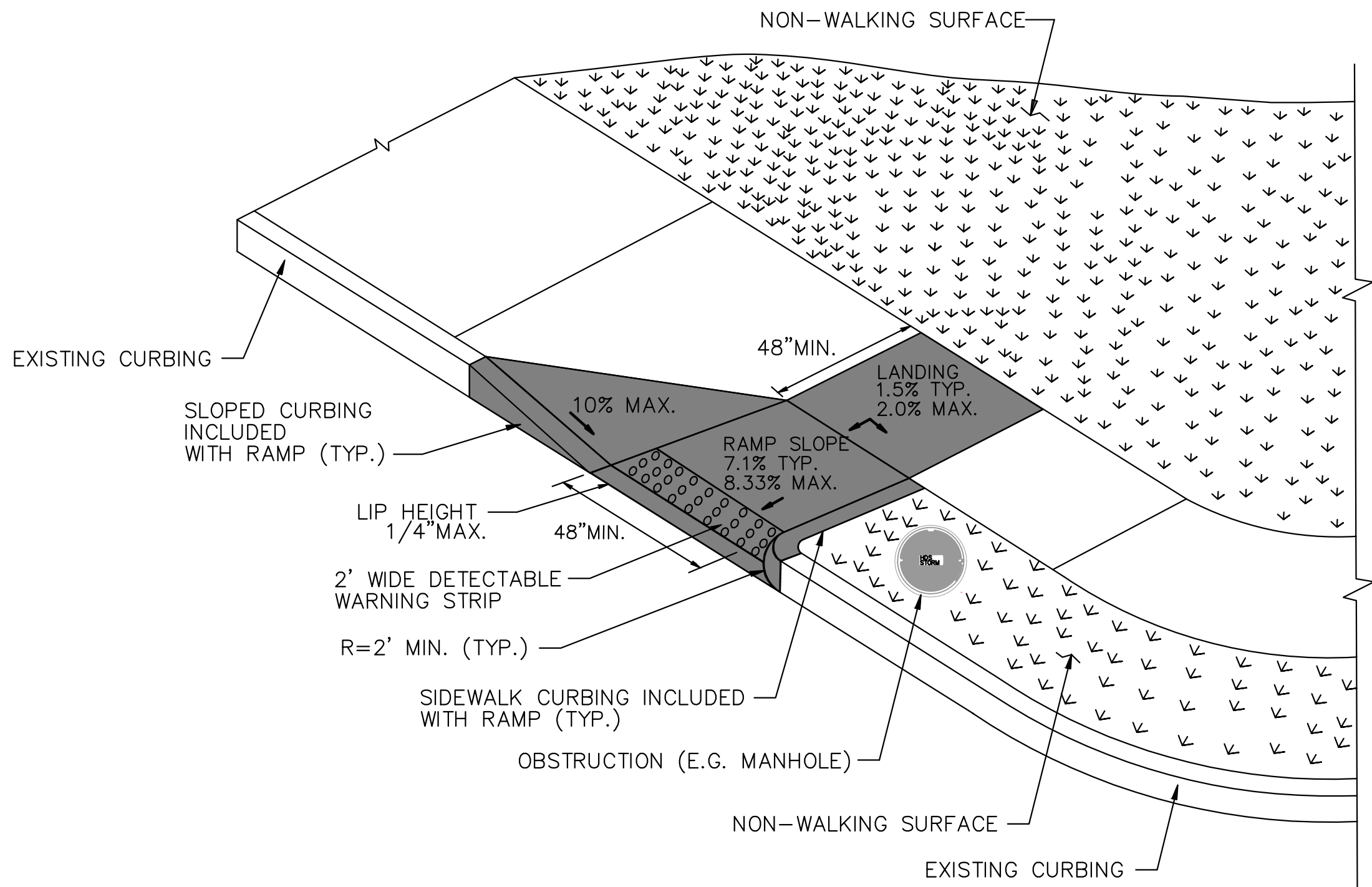
PROJECT TITLE  
PEDESTRIAN  
IMPROVEMENTS

SHEET TITLE  
DETAILS

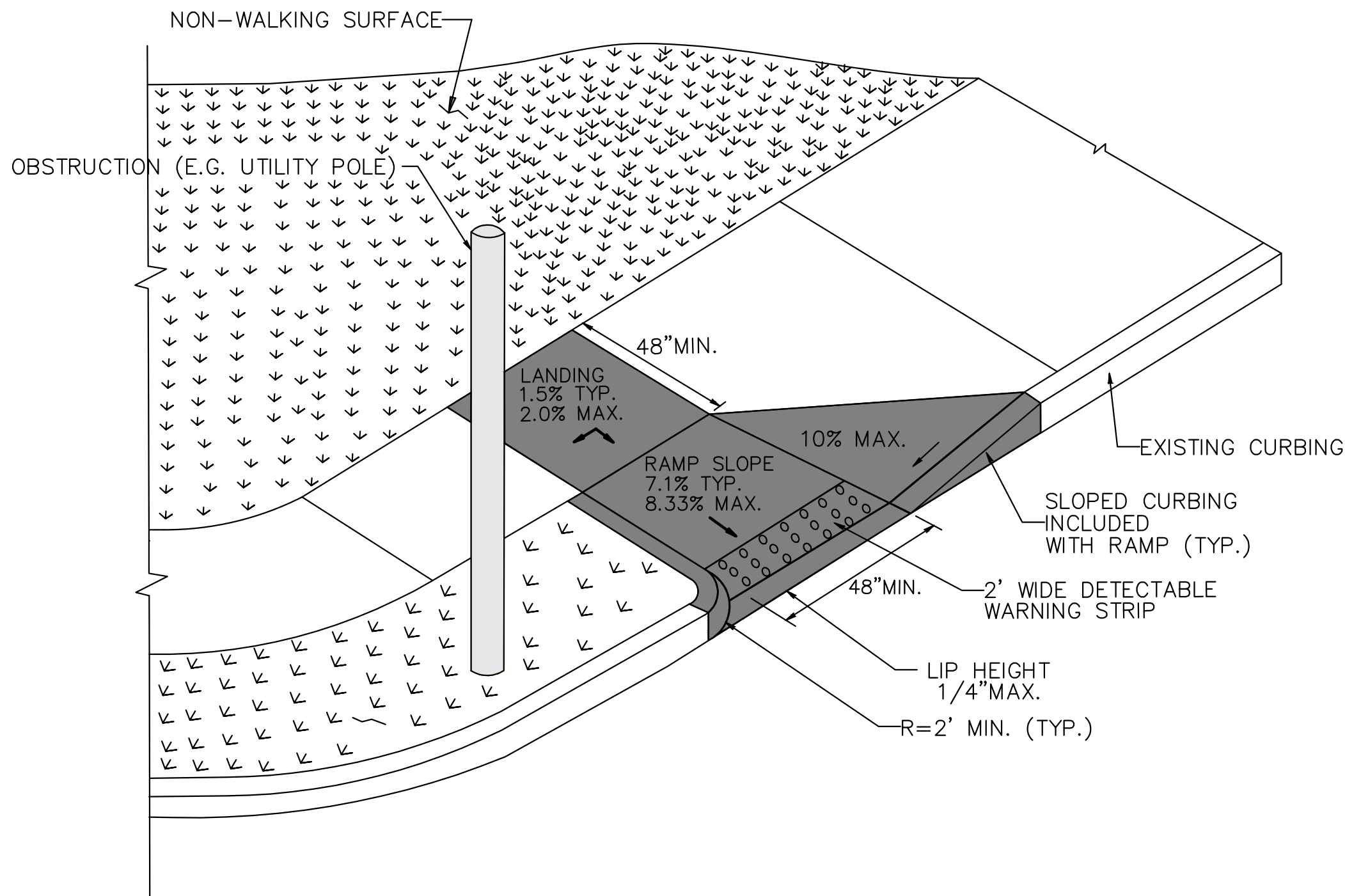
SHEET NUMBER  
8 of 9



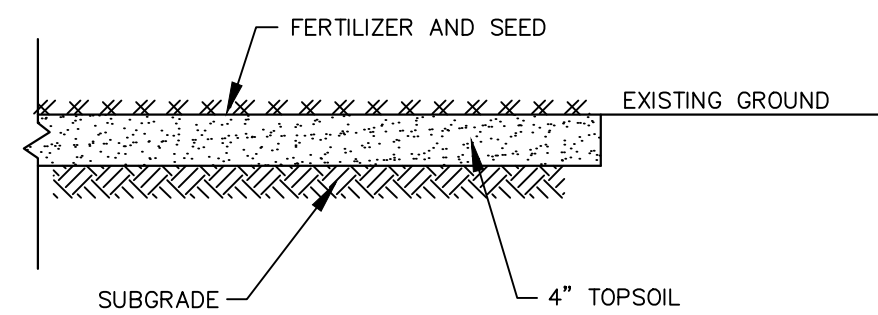
R:\Project\Public Works\2020\03 - CDBG\Proj\2020\03-03-Detail S.dwg, \$3/1/2023 12:23:01 PM, jlbhwa



**CTDOT TYPE 18 LEFT - CONCRETE SIDEWALK RAMP**  
(PERPENDICULAR RAMP WITH NON-WALKING SURFACE)  
NOT TO SCALE

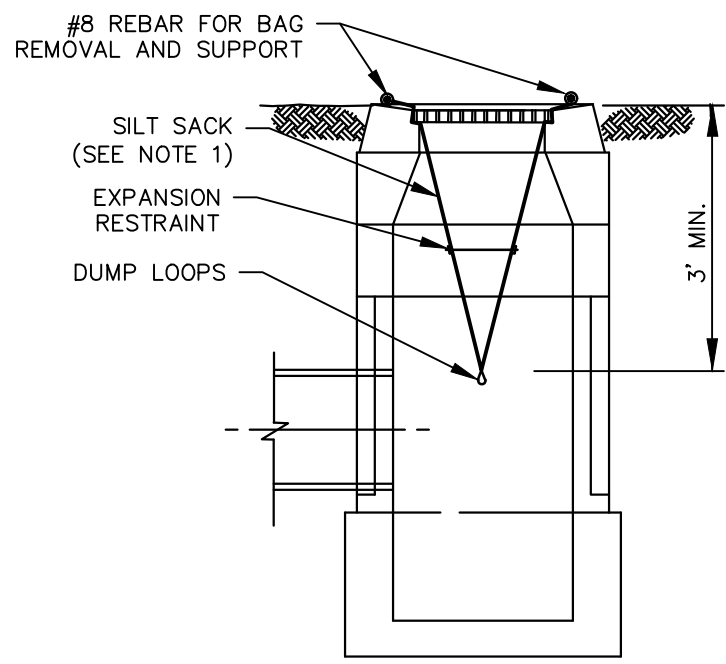


**CTDOT TYPE 18 RIGHT - CONCRETE SIDEWALK RAMP**  
(PERPENDICULAR RAMP WITH NON-WALKING SURFACE)  
NOT TO SCALE



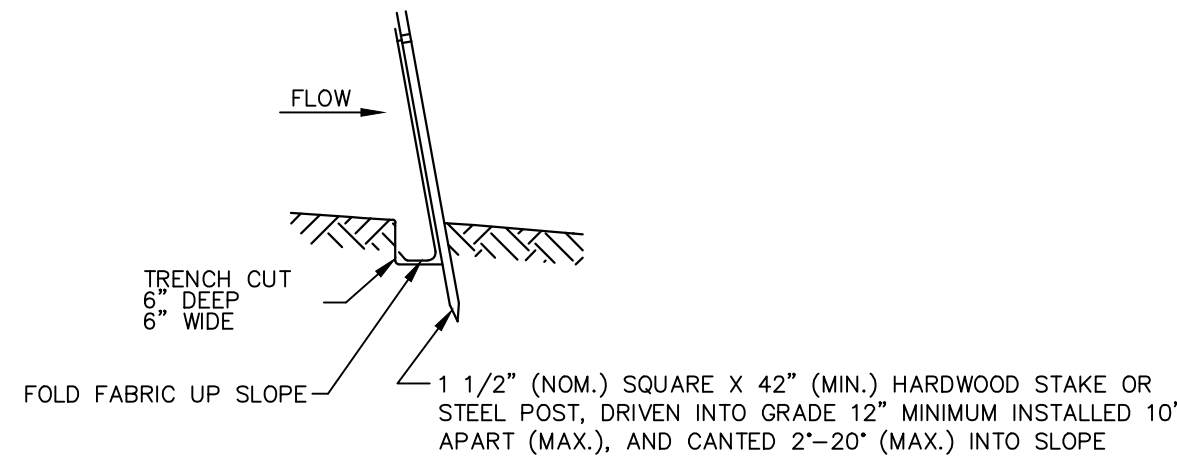
- NOTES:
1. REFER TO CONTRACT SPECIFICATIONS FOR SEED MIXTURES.
  2. PERMANENT GRASS SEED MIXES SHALL BE APPLIED FROM APRIL 1 THROUGH JUNE 15 OR AUGUST 15 THROUGH OCTOBER 1.
  3. PERENNIAL RYEGRASS SHALL BE APPLIED AS TEMPORARY GRASS SEED FROM MARCH 15 THROUGH JULY 1 OR AUGUST 1 THROUGH OCTOBER 15.

**RESTORATION OF LAWN AREAS**  
NOT TO SCALE

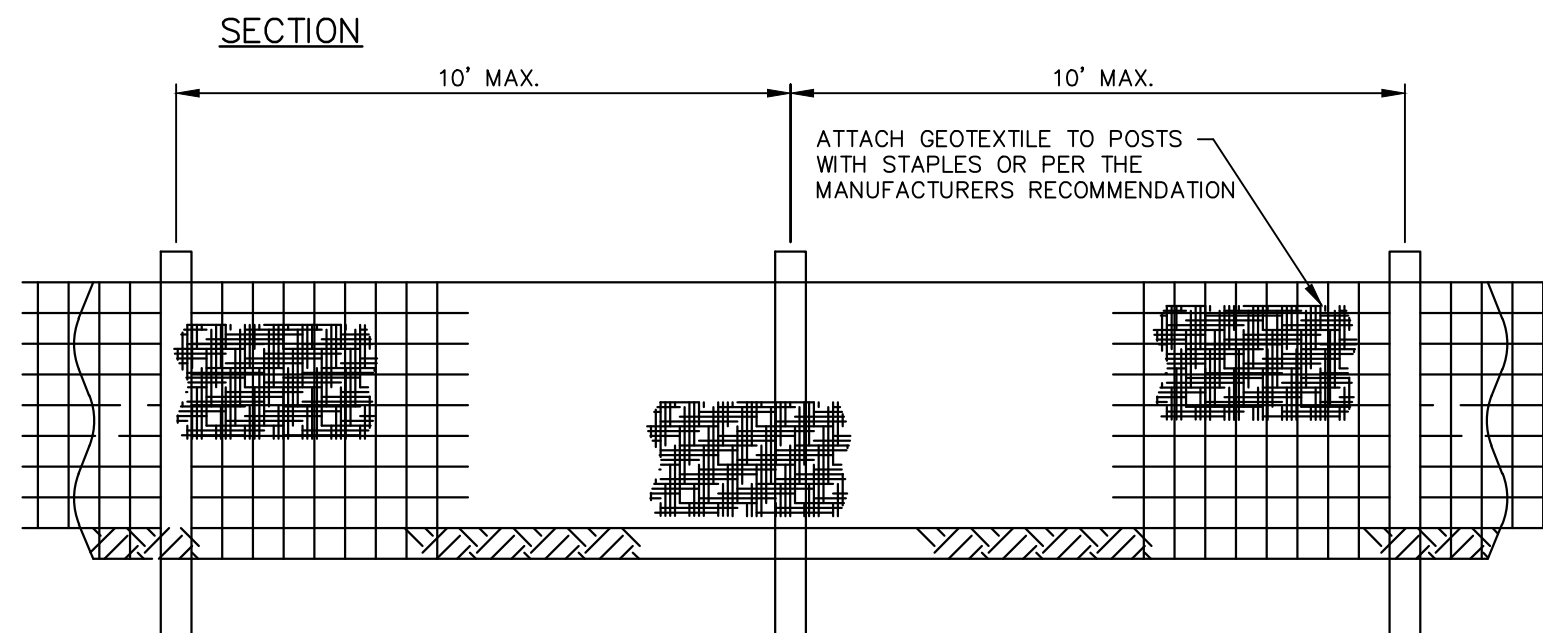


- NOTES:
1. SILT SACKS SHALL BE HI-FLOW SILTSACK® "TYPE A" FOR TYPE "C-L" CB TOPS AND "TYPE B" WITH CURB DEFLECTORS FOR TYPE "C" CB TOPS OR OTHER STRUCTURES WITH CURB INLETS AS MANUFACTURED BY ACF ENVIRONMENTAL, INC OR APPROVED EQUAL.
  2. SILT SACKS SHALL BE PROVIDED WITH INTERNAL OVERFLOWS.
  3. SILT SACKS SHALL BE EMPTIED WHEN THEY HAVE COLLECTED 6" TO 12" OF SEDIMENT. INSPECT EVERY 1 TO 2 WEEKS AND AFTER EVERY MAJOR RAINFALL EVENT.

**SILT SACK**  
NOT TO SCALE



- NOTES:
1. SEDIMENT CONTROL FABRIC TO BE A GEOTEXTILE MATERIAL TREATED TO RESIST DEGRADATION FROM EXPOSURE TO SUNLIGHT.
  2. FOR EACH SPECIFIC USE, ONLY GEOTEXTILES ON THE CONNECTICUT DEPARTMENT OF TRANSPORTATION APPROVED LIST ARE TO BE USED.
  3. AFTER FOLDING FABRIC EDGE, BACKFILL TRENCH WITH ORIGINAL SOIL AND BUTTRESS THE SPLAY WITH MULCH OR LEAF LITTER.



**SILT FENCE**  
NOT TO SCALE



TOWN OF MANCHESTER  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
494 MAIN STREET - P.O. BOX 191  
MANCHESTER, CT 06045-0191

LEGEND	
	= WETLANDS BOUNDARY
	= RETAINING WALL
	= GLUE RAIL
	= STONE WALL
	= STOCKADE FENCE
	= WIRE FENCE
	= CHAIN LINK FENCE
	= PROPERTY LINE
	= RAILROAD TRACKS
	= SILT FENCE
	= CONCRETE MONUMENT
	= GRANITE MONUMENT
	= IRON PIPE
	= IRON ROD
	= CONTROL POINT
	= DRILL HOLE
	= UTILITY POLE
	= TRAFFIC SPAN POLE
	= ELECTRIC BOX
	= WETLAND FLAG
	= LIGHT POLE
	= CONIFEROUS TREE
	= DECIDUOUS TREE
	= SANITARY MANHOLE
	= DRAINAGE MANHOLE
	= CATCH BASIN
	= CULVERT END
	= HYDRANT
	= CURB STOP
	= WATER VALVE
	= BUTTERFLY VALVE
	= BLOW OFF
	= SIGN
	= DOUBLE POST SIGN
	= MAIL BOX
	= BOLLARD
	= CONTROLLER CABINET
	= GAS GATE
	= TELEPHONE BOX
	= CATV TUBE

PROJECT NUMBER  
**2020103**

FILENAME  
**2020103-DETAILS.DWG**

NO.	DATE	FILE
1	05/31/23	BID PLANS

DRAWN BY: **JD**  
CHECKED BY: **JD**  
RELEASED BY: **JL**

DRAWING SCALE  
HORIZONTAL: 1" = 20' VERTICAL: ---  
OR AS NOTED  
20 10 0 20  
GRAPHIC SCALE

DATUM  
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION  
**EAST CENTER STREET  
MANCHESTER, CT**

PROJECT TITLE  
**PEDESTRIAN  
IMPROVEMENTS**

SHEET TITLE  
**DETAILS**

SHEET NUMBER  
**9 of 9**